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JAMES M. STOVER
NCR CORPORATION
1700 SOUTH PATTERSON BLVD, WHQ4
DAYTON, OH 45479

EXAMINER
MAHMOUDI, HASSAN

ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary		Application No.	Applicant(s)
		09/728,852	WATSON ET AL.
		Examiner	Art Unit
		Tony Mahmoudi	2165

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11-31* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11-13 and 17-31* is/are rejected.

7)☒ Claim(s) *14-16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to communications filed on 17-March-2005, the specification has been amended

   to overcome the previous objection made by the examiner. Claims 1-9 and 11-31 are

   presently pending in the application, of which, claims 1, 11 and 19 are presented in

   independent form.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

   basis for the rejections under this section made in this Office action:

   > A person shall be entitled to a patent unless –
   >
   > (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6-8, 11, and 17-31 are rejected under 35 U.S.C. 102(b) as being anticipated by

   <u>Nazem et al</u> (U.S. Patent No. 5,983,227.)

   As to claim 1, <u>Nazem et al</u> teaches a method, comprising:

   receiving data to be stored in a database system having plural data servers (see figure 1,

   "data from data sources" is depicted being received by "page servers 104", and see figure 2,

   where "database system" is depicted as "shared memory 212", having "plural data servers",

   depicted as "servers 230, 232, and 234");

receiving information associated with at least one characteristic of the data (see Abstract, and see column 2, lines 5-14, where "at least one characteristic of the data" is read on the type of news pages being received, for example, "news, news headlines, sports scores, weather, and the like");

partitioning the data for storage in the database system based on the characteristic associated with the data (see figure 1, where the data is shown as divided up and stored in various "page server 104", based on the type (characteristic) of the data, and see column 3, lines 2-7); and

storing the partitioned data in storage units associated with the plural data servers (see figure 1, where "data from data sources" is stored on multiple "page server 104", and see column 3, lines 36-48, and see column); and

in response to a database query (see column 4, lines 3-24), selecting less than all the plural data servers based on the positioning of the data to reduce a number of data servers involved in processing the database query (see figures 2 and 6; see column 2, lines 8-14, where "selecting less than all the plural data servers to reduce the number of data servers involved in the processing of the database query" is read on "eliminating the need to make requests from other servers for portions of the live data"; also see column 3, lines 49-58, and see column 6, lines 23-59.)

As to claim 2, Nazem et al teaches wherein receiving the information comprises receiving the information from a client system (see figure 1, where "client system" is depicted as

"Browser 102" and "User Configuration Database 116"; see column 2, lines 29-30, and see

column 2, lines 52-66.)

As to claim 3, <u>Nazem et al</u> teaches wherein receiving the information comprises receiving

at least one of an average value of the data, a uniform distribution of the data, a minimum

value of the data, and a maximum value of the data (see figure 1, where "data from data

sources" is shown being received and distributed by the controller "MY.YAHOO.COM". It

is inherent that "data" includes at least one of "minimum value" or "maximum value".)

As to claims 6 and 21, <u>Nazem et al</u> teaches wherein partitioning the data for storage in the

database system comprises dividing the data into buckets containing related data (see figure

2, where "data from data sources" is depicted as divided into "buckets" (sports server 230,

stock server 232, and news server 234, and where each "bucket" (server) contains "related

data" within the bucket.)

As to claim 7, <u>Nazem et al</u> teaches wherein partitioning the data comprises organizing the

data into related portions (see figure 2, where "data from data sources" are shown as

"organized" into various servers relating to various topics.)

As to claims 8, and 20, <u>Nazem et al</u> teaches wherein partitioning the data further

comprises executing an algorithm to organize the data (see column 1, lines 66-67, where

"executing an algorithm" is read on "one process is executed", and see figure 2, where "data

is organized" into various "servers". It is inherent that a computer has to execute a

routine/algorithm in order to organize/categorize data into related groups.)

As to claim 11, <u>Nazem et al</u> teaches a system, comprising:

a database (see figure 1);

a network interface (see figure 1, and see column 3, lines 23-35);

plural storage modules and data servers (see figure 1, where "plural storage modules" is

read on "data sources", and "data servers" is read on "page servers 104");

a database controller coupled to the database (see figure 1, where "database controller" is

read on "MY.YAHOO.COM"), wherein the database controller is adapted to receive

partitioning information (see figure 1, where the "database controller" (MY.YAHOO.COM)

is receiving "data from data sources") and perform a partitioning task on data received

through the network interface based on the partitioning information to partition the data into

plural groups (see figure 1, where the data is partitioned by MY.YAHOO.COM into various

page servers 104. Also, see figure 2),

the database controller adapted to further store the plural groups of the data partitioned by

the partitioning task into plural storage modules associated with corresponding data servers

(see figure 2, where "corresponding plural data servers" is depicted as "sports server 230",

"stock server 232", and "news server 234"),

the database controller (see figure 1, where "database controller" is read on

"MY.YAHOO.COM") adapted to select, in response to a database query, less than all the

plural data servers based on the partitioning information to reduce a number of data servers

involved in processing the database query (see figures 2 and 6; see column 2, lines 8-14,

where "selecting less than all the plural data servers to reduce the number of data servers

involved in the processing of the database query" is read on "eliminating the need to make

requests from other servers for portions of the live data"; also see column 3, lines 49-58, and

see column 6, lines 23-59.)

As to claim 17, Nazem et al teaches the system further comprising a client system,

wherein the client system sends data to the database through the network interface (see figure

1, where "client system" is read on "browser 102" which communicates to the "data sources"

through the "Internet".)

As to claim 18, Nazem et al teaches wherein the client system is adapted to further send

the partitioning information to be used by the database controller to partition the data (see

figures 1 and 2, where the "browser 102", in communication with the "user configuration

database 116" communicate the partitioning information to the database controller

(MY.YAHOO.COM), which in turn partitions the data received from the "data sources" into

various "page server 104".)

As to claim 19, the applicant is kindly directed to remarks and discussions made in claim

1 above.

As to claim 22, <u>Nazem et al</u> teaches wherein receiving the information comprises

receiving organizational information (see figure 1, where "organizational information" is the

"user configurations", used to "organize" the way the "data from data sources" are stored

into different page servers), and wherein selecting less than all the plural data servers is based

on the organizational information (see figure 1, where the partitioning based on the

organizational information makes it possible to select any one or a combination of the page

servers for obtaining desired information.)

As to claim 23, <u>Nazem et al</u> teaches wherein selecting less than all the plural data servers

is based on the organizational information (see figure 1, where the partitioning based on the

organizational information makes it possible to select any one or a combination of the page

servers for obtaining desired information) and a characteristic of data requested by the

database query (see column 2, lines 5-14, where "at least one characteristic of the data" is

read on the type of news pages being received, for example, "news, news headlines, sports

scores, weather, and the like".)

As to claims 24, 28, and 31, it is inherent the step of "selecting at least one more data

server to process the database query if the search results are not satisfactory", can be

achieved manually, by the user entering a new/second search and/or by the user modifying

his configurations (see <u>Nazem et al</u>, figure 2, "user configuration 206".)

As to claim 25, <u>Nazem et al</u> teaches partitioning the data (see figures 1 and 2.) As for the step of "wherein partitioning the data comprises partitioning the data into logical groups", there is no distinction between "partitioning the data" and "dividing the data into logical groups", since the act of "partitioning" provides a "logic" for how data items are to be separated and stored.

As to claim 26, <u>Nazem et al</u> teaches the method further comprising storing the information by a partitioner, wherein selecting less than all the data select is performed at least in part by the partitioner (see figure 1, where "MY.YAHOO.COM" partitions the data into various "page servers", and based on the partitions, one/all of the servers are selected in performing the search query for the user.)

As to claim 27, <u>Nazem et al</u> teaches the database controller to select less than all the plural data servers based on the partitioning information and a characteristic of data requested by the database query (see column 2, lines 5-14, where "at least one characteristic of the data" is read on the type of news pages being received, for example, "news, news headlines, sports scores, weather, and the like".)

As to claim 29, <u>Nazem et al</u> teaches wherein the instructions when executed cause the device to receive information comprising partitioning information (see figure 1, where "partitioning information" is the "user configurations", used to "partition" the "data from data sources" into different page servers.)

As to claim 30, <u>Nazem et al</u> teaches wherein the instructions when executed cause the

device to select less than all the plural data servers based on the partitioning information and

a characteristic of data requested by the database query (see figure 1, where the partitioning

based on the organizational information makes it possible to select any one or a combination

of the page servers for obtaining desired information.)

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that said subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Nazem et al</u> (U.S.

Patent No. 5,983,227) in view of <u>Sinden</u> (U.S. patent No. 6,580,826.)

As to claim 4, <u>Nazem et al</u> does not teach wherein partitioning the data comprises

defining straight-line segments based on at least one of the average value of the data, the

uniform distribution of the data, the minimum value of the data, and the maximum value of

the data.

<u>Sinden</u> teaches a method for encoding handwritten symbols (see Abstract), in which he

teaches wherein partitioning the data (see column 4, lines 37-43) comprises defining

straight-line segments (see figures 3A and 3B; see column 3, lines 33-38; and see column 4, lines 13-24) based on at least one of the average value of the data, the uniform distribution of the data, the minimum value of the data, and the maximum value of the data (see figure 7; see Abstract; and see column 7, lines 21-37, where "raw data" is received. It is inherent that "raw data" includes at least one of "minimum value" or "maximum value".)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Nazem et al to include wherein partitioning the data comprises defining straight-line segments based on at least one of the average value of the data, the uniform distribution of the data, the minimum value of the data, and the maximum value of the data.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Nazem et al, by the teachings of Sinden, because including wherein partitioning the data comprises defining straight-line segments based on at least one of the average value of the data, the uniform distribution of the data, the minimum value of the data, and the maximum value of the data, would enable the system to map different data elements with each other in order to determine a relational partition between the data elements, for fast access within various databases.

As to claim 5, Nazem et al as modified, teaches wherein partitioning the data further comprises defining breakpoints to provide the straight-line segments (see Sinden, figure 4, 5A, and 5B; see column 2, lines 11-16; and see column 4, lines 13-24.)

6. Claims 9 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Nazem et al</u> (U.S. Patent No. 5,983,227) in view of <u>Garth et al</u> (U.S. patent No. 6,678,701.)

As to claims 9 and 13, <u>Nazem et al</u> does not teach teaches wherein storing the partitioned data in the database system comprises storing the partitioned data in a relational database system.

<u>Garth et al</u> teaches a system for establishing consistency in parallel databases (see Abstract), in which he teaches wherein storing the partitioned data in the database system comprises storing the partitioned data in a relational database system (see column 3, lines 16-34.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified <u>Nazem et al</u> to include wherein storing the partitioned data in the database system comprises storing the partitioned data in a relational database system.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified <u>Nazem et al</u> by the teaching of <u>Garth et al</u>, because storing the partitioned data in a relational database system, would enable the system to define relationships between elements of each data type and be able to link related data for faster searching of users' queries.

As to claim 12, <u>Nazem et al</u> does not teaches wherein the database is part of a parallel database system.

Garth et al teaches a system for establishing consistency in parallel databases (see Abstract), in which he teaches wherein the database is part of a parallel database system (see figure 1; see column 2, line 64 through column 3, line 15; and see column 4, line 54 through column 5, line 12.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Nazem et al to include wherein storing the partitioned data in the database system comprises storing the partitioned data in a relational database system.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Nazem et al, by the teaching of Garth et al, because wherein storing the partitioned data in the database system comprises storing the partitioned data in a relational database system, would enable the system to execute a search query on various databases in parallel, therefore, increasing the speed of the search. When a database load utility uses parallel processing, each agent load process typically reads from one or more input files, loads the data into one or more parts of the database, and writes information to one or more output files, as taught by Garth et al (see column 5, lines 51-56.)

Allowable Subject Matter

7. Claims 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

    The prior art of record, <u>Nazem et al</u> (U.S. Patent No. 5,983,227), <u>Sinden</u> (U.S. patent No.

6,580,826), and <u>Garth et al</u> (U.S. patent No. 6,678,701), do not disclose, teach, or suggest the

claimed limitations of (in combination with all other features in the claim):

    a query coordinator coupled to the network interface, the query coordinator to receive the

database query from the network interface;

    a partitioner to partition data and perform selecting of less than all the plural data servers;

and

    a partitioner data storage coupled to the partitioner, the partitioner data storage to store

the partitioning information associated with at least one characteristic of the data to enable

the partitioner to partition data, as recited in claim 14.

    Claims 15-16 are objected to because they are dependents from the objected to dependent

claim 14.

Response to Arguments

9. Applicant's arguments made in the response filed on 17-March-2005 with respect to the

    rejected claims in view of the cited references have been fully considered but they are not

    deemed persuasive:

In response to applicant's arguments that <u>Nazem et al</u> does not teach a "database system",

the arguments have been fully considered but are not deemed persuasive because <u>Nazem et al</u>

teaches "database system having plural data servers" (see figure 1, "data from data sources"

is depicted as being received by "page servers 104", and see figure 2, where "database

system" is depicted as "plural data servers", depicted as "servers 230, 232, and 234".)

Further, <u>Nazem et al</u> teaches "user configuration database" throughout his invention (e.g.,

column 3, lines 22-35), where the "user configuration database" stores user templates.

In response to the applicant's arguments that "basic database elements, such as rows and

columns, are completely missing" from <u>Nazem et al</u>, the arguments have been fully

considered but they are not deemed persuasive, because in figure 6, <u>Nazem et al</u> depicts

tables in populating the user templates [in the user configuration database] (see "zip code

lookup table" 602 and "team location table" 606 in figure 6, and see column 6, lines 23-50.)

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy

as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until

after the end of the THREE-MONTH shortened statutory period, then the shortened statutory

period will expire on the date the advisory action is mailed, and any extension fee pursuant to

37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

11. Any inquiries concerning this communication or earlier communications from the examiner

should be directed to Tony Mahmoudi whose telephone number is (571) 272-4078. The

examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dov Popovici, can be reached at (571) 272-4083.

tm

May 5, 2005

SAM RIMELL
PRIMARY EXAMINER